



## Statement of Basis

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**V. RECEIVING WATERS:**

The discharge is into an unnamed ditch, thence into Bayou Boeuf-Cocodrie Diversion Canal in segment 060208 of the Vermilion - Teche Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060208 of the Vermilion - Teche Basin are as indicated in the table below<sup>1/</sup>:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

<sup>1/</sup>The designated uses and degree of support for Segment 060208 of the Vermilion - Teche Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

**VI. ENDANGERED SPECIES:**

The receiving waterbody, Subsegment 060208 of the Vermilion - Teche Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated January 5, 2010 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**VII. HISTORIC SITES:**

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

**VIII. PUBLIC NOTICE:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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For additional information, contact:

Ms. Rachel Davis  
Water Permits Division  
Department of Environmental Quality  
Office of Environmental Services  
P. O. Box 4313  
Baton Rouge, Louisiana 70821-4313

**IX. PROPOSED PERMIT LIMITS:****Final Effluent Limits:**

Subsegment 060208, Bayou Boeuf- Headwaters to Bayou Courtableau, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, subsegment 060208 was previously listed as impaired for organic enrichment/low DO, pathogen indicators, total dissolved solids, chlorides, sulfates, salinity, nutrients and phosphorus, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 060208:

*The Bayou Boeuf TMDL for Dissolved Oxygen and Nutrients Including Point Source Wasteload Allocations and Watershed Nonpoint Source Load Allocations*

The TMDL states that this facility is too small and too far from Bayou Boeuf to have a significant impact on the model used for the TMDL. Therefore, this facility will maintain the CBOD<sub>5</sub>, NH<sub>3</sub>-N and DO limits that were established in the previous LDPES permit.

*Bayou Boeuf Fecal Coliform*

According to the TMDL, "There will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL." Therefore, Fecal Coliform effluent limitations will remain as previously permitted.

*Bayou Boeuf TMDL for Total Dissolved Solids*

The TMDL states that "The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain in-stream TDS water quality standards of 100 mg/l on this subsegment. Therefore, there will be a need to include TDS limits in the permit requirements based upon a wasteload allocation resulting from the TMDL." The calculated loading limitation based the water quality standard and the expected flow of the facility is 89.4 lbs/day.

**Chlorides, Sulfates, and Salinity**

As per the October 2000 LA TMDL Delist (Federal Register Notice: Vol 66, Num. 66 pages 18087-18089, 4/5/2001), assessment of new data and information shows this segment is meeting water quality standards for chlorides and sulfates. Therefore, requirements for chlorides and sulfates will not be placed in this permit.

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## OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs/day)	Monthly Avg.	Weekly Avg.	Basis
CBOD <sub>5</sub> April-October November-March	8.9 17.9	10 mg/l 20 mg/l	15 mg/l 30 mg/l	Limits are set in accordance with the Bayou Boeuf Wasteload Allocation (EDMS document No.: <u>30213622</u> ) and the previous permit
TSS April-October November-March	13.4 17.9	15 mg/l 20 mg/l	23 mg/l 30 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen April-October November-March	1.8 8.9	2 mg/l 10 mg/l	4 mg/l 15 mg/l	Limits are set in accordance with the Bayou Boeuf Wasteload Allocation (EDMS document No.: <u>30213622</u> ) and the previous permit
Dissolved Oxygen*	---	5 mg/l	N/A	Limits are set in accordance with the Bayou Boeuf Wasteload Allocation (EDMS document No.: <u>30213622</u> ) and the previous permit
Total Dissolved Solids	89.4	---	---	Based on the <u>Bayou Boeuf TMDL for Total Dissolved Solids</u>

\*This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

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**Other Effluent Limitations:****1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

**2) pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

**3) Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

**X. PREVIOUS PERMITS:**

LPDES Permit No. LA0072541: Issued: November 1, 2004

Expired: October 31, 2009

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD <sub>5</sub>				
April-October	10 mg/l	15 mg/l	2/month	Grab
November-March	20 mg/l	30 mg/l	2/month	Grab
TSS				
April-October	15 mg/l	23 mg/l	2/month	Grab
November-March	20 mg/l	30 mg/l	2/month	Grab
Ammonia-Nitrogen				
April-October	2 mg/l	4 mg/l	2/month	Grab
November-March	10 mg/l	15 mg/l	2/month	Grab
Dissolved Oxygen	5 mg/l	---	2/month	Grab
TDS	89.4 lbs/day	---	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab
pH	Range (within 6 & 9)		2/month	Grab

**XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:****A) Inspections**

A review of the files indicates that no inspections have been conducted in the past five years. Therefore, this facility was referred to the surveillance division for inspection.

**B) Compliance and/or Administrative Orders**

A review of the files indicates that no compliance orders have been issued against the facility in the past two years.

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**C) DMR Review**

A review of the discharge monitoring reports for the period beginning **September 2007** through **September 2009** has revealed the following violations:

Period of Excursion	Outfall	Parameter	Permit Limit	Reported Quantity
November 2007	001	TDS	89.4 lbs/day	179 lbs/day
December 2007	001	TDS	89.4 lbs/day	192 lbs/day
January 2008	001	TDS	89.4 lbs/day	575 lbs/day
February 2008	001	TDS	89.4 lbs/day	1,067 lbs/day
March 2008	001	TDS	89.4 lbs/day	395 lbs/day
April 2008	001	TDS	89.4 lbs/day	302 lbs/day
May 2008	001	TDS	89.4 lbs/day	230 lbs/day
September 2009		TSS	15 mg/l	20 mg/l
		TSS	23 mg/l	35 mg/l

**XII. ADDITIONAL INFORMATION:**

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

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Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.1072 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.172 \text{ MGD} \times 10 \text{ mg/l} = 8.9 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between **0.1** and **0.5** MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD <sub>5</sub>	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Total Dissolved Solids	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, it is recommended that LDEQ Option 1 Pretreatment Language be included in LPDES Permit LA0072541.

This language is established for municipalities that do not have either an approved or required Pretreatment program. This recommendation is in accordance with 40 CFR Part 403 regulations, the General Pretreatment Regulations for Existing and New Sources of Pollution contained in LAC Title 33, Part IX, Chapter 61 and the Best Professional Judgement (BPJ) of the reviewer.

**XIII. TENTATIVE DETERMINATION:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

**XIV. REFERENCES:**

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2009.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2010.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2010.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

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Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Rapides Parish Sewerage District No 1, Deerfield Wastewater Treatment Plant, April 30, 2009.